

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

1. (Currently amended) A method for identifying an amino acid sequence, comprising the ~~step~~ steps of:

searching for putative open reading frames or protein-coding sequences within ~~one or more of N. meningitidis nucleotide sequences selected from the group consisting of SEQ ID NO:1 and the NMB open reading frames;~~ and

identifying an amino acid sequence corresponding to the searched putative open reading frames or protein-coding sequences.

2. (Currently amended) A method according to claim 1, ~~comprising wherein the searching comprises~~ the steps of: searching a ~~N. meningitidis nucleotide sequence~~ SEQ ID NO:1 for an initiation codon; and

searching ~~the upstream sequence~~ for an in-frame termination codon downstream of the initiation codon.

3. (Withdrawn) A method for producing a protein, comprising the step of expressing a protein comprising an amino acid sequence identified according to claim 1.

4. (Withdrawn) A method for identifying a protein in *N. meningitidis*, comprising the steps of producing a protein according to claim 3, producing an antibody which binds to the protein, and determining whether the antibody recognizes a protein produced by *N. meningitidis*.

5. (Withdrawn) Nucleic acid comprising an open reading frame or protein-coding sequence identified by a method according to claim 1.

6. (Withdrawn) A protein obtained by the method of claim 3.

7. (Withdrawn) Nucleic acid comprising one or more of the *N. meningitidis* nucleotide sequences selected from the group consisting of SEQ ID NO 1 and the NMB open reading frames.

8. (Withdrawn) Nucleic acid comprising a nucleotide sequence having greater than 50% sequence identity to a nucleotide sequence selected from the group consisting of SEQ ID NO 1 and the NMB open reading frames.

9. (Withdrawn) Nucleic acid comprising a fragment of a nucleotide sequence selected from the group consisting of SEQ ID NO 1 and the NMB open reading frames.

10. (Withdrawn) Nucleic acid according to claim 9, wherein the fragment is unique to the genome of *N. meningitidis*.

11. (Withdrawn) Nucleic acid complementary to the nucleic acid of claim 7.

12. (Withdrawn) A protein comprising an amino acid sequence encoded within one or more of the *N. meningitidis* nucleotide sequences selected from the group consisting of SEQ ID NO 1 and the NMB open reading frames.

13. (Withdrawn) A protein comprising an amino acid sequences having greater than 50% sequence identity to an amino acid sequence encoded within one or more of the *N. meningitidis* nucleotide sequences selected from the group consisting of SEQ ID NO 1 and the NMB open reading frames.

14. (Withdrawn) A protein comprising a fragment of an amino acid sequence encoded within one or more of the *N. meningitidis* nucleotide sequences selected from the group consisting of SEQ ID NO 1 and the NMB open reading frames.

15. (Withdrawn) Nucleic acid encoding a protein according to claim 6.

16. (Withdrawn) A computer, a computer memory, a computer storage medium or a computer database containing the nucleotide sequence of a nucleic acid according to claim 8.

17. (Withdrawn) A computer, a computer memory, a computer storage medium or a computer database containing one or more of the *N. meningitidis* nucleotide sequences selected from the group consisting of SEQ I NO 1 and the NMB open reading frames.

18. (Withdrawn) A polyclonal or monoclonal antibody which binds to a protein according to claim 6.

19. (Withdrawn) A nucleic acid probe comprising nucleic acid according to claim 5.

20. (Withdrawn) An amplification primer comprising nucleic acid according to claim 5.

21. (Withdrawn) A composition comprising nucleic acid according to claim 5.

22-23 (Canceled)

24. (Withdrawn) A method of treating a patient, comprising administering to the patient a therapeutically effective amount of a composition according to claim 21.

25. (Withdrawn) A method for producing a protein, comprising the step of expressing a protein comprising an amino acid sequence identified according to claim 2.

26. (Withdrawn) A method for identifying a protein in *N. meningitidis*, comprising the steps of producing a protein according to claim 25, producing an antibody which binds to the protein, and determining whether the antibody recognizes a protein produced by *N. meningitidis*.

27. (Withdrawn) Nucleic acid comprising an open reading frame or protein-coding sequence identified by a method according to claim 2.

28. (Withdrawn) A protein obtained by the method of claim 25.

29. (Withdrawn) Nucleic acid encoding a protein according to claim 28.

30. (Withdrawn) A computer, a computer memory, a computer storage medium or a computer database containing the nucleotide sequence of a nucleic acid according to claim 9.

31. (Withdrawn) A computer, a computer memory, a computer storage medium or a computer database containing the nucleotide sequence of a nucleic acid according to claim 10.

32. (Withdrawn) A computer, a computer memory, a computer storage medium or a computer database containing the nucleotide sequence of a nucleic acid according to claim 11.

33. (Withdrawn) A polyclonal or monoclonal antibody which binds to a protein according to claim 28.

34. (Withdrawn) A polyclonal or monoclonal antibody which binds to a protein according to claim 12.

35. (Withdrawn) A polyclonal or monoclonal antibody which binds to a protein according to claim 13.

36. (Withdrawn) A polyclonal or monoclonal antibody which binds to a protein according to claim 14.

37. (Withdrawn) A nucleic acid probe comprising nucleic acid according to claim 27.

38. (Withdrawn) A nucleic acid probe comprising nucleic acid according to claim 7.

39. (Withdrawn) A nucleic acid probe comprising nucleic acid according to claim 8.

40. (Withdrawn) A nucleic acid probe comprising nucleic acid according to claim 9.

41. (Withdrawn) A nucleic acid probe comprising nucleic acid according to claim 10.

42. (Withdrawn) A nucleic acid probe comprising nucleic acid according to claim 15.

43. (Withdrawn) A nucleic acid probe comprising nucleic acid according to claim 29.
44. (Withdrawn) An amplification primer comprising nucleic acid according to claim 27.
45. (Withdrawn) An amplification primer comprising nucleic acid according to claim 7.
46. (Withdrawn) An amplification primer comprising nucleic acid according to claim 8.
47. (Withdrawn) An amplification primer comprising nucleic acid according to claim 9.
48. (Withdrawn) An amplification primer comprising nucleic acid according to claim 10.
49. (Withdrawn) An amplification primer comprising nucleic acid according to claim 15.
50. (Withdrawn) An amplification primer comprising nucleic acid according to claim 29.
51. (Withdrawn) A composition comprising nucleic acid according to claim 27.
52. (Withdrawn) A composition comprising nucleic acid according to claim 7.
53. (Withdrawn) A composition comprising nucleic acid according to claim 8.
54. (Withdrawn) A composition comprising nucleic acid according to claim 9.
55. (Withdrawn) A composition comprising nucleic acid according to claim 10.
56. (Withdrawn) A composition comprising nucleic acid according to claim 15.
57. (Withdrawn) A composition comprising nucleic acid according to claim 29.
58. (Withdrawn) A composition comprising protein according to claim 12.
59. (Withdrawn) A composition comprising protein according to claim 13.

60. (Withdrawn) A composition comprising protein according to claim 14.
61. (Withdrawn) A composition comprising an antibody according to claim 18.
62. (Withdrawn) A composition comprising an antibody according to claim 33.
63. (Withdrawn) A composition comprising an antibody according to claim 34.
64. (Withdrawn) A composition comprising an antibody according to claim 35.
65. (Withdrawn) A composition comprising an antibody according to claim 36.
66. (Withdrawn) A method of treating a patient, comprising administering to the patient a therapeutically effective amount of a composition according to claim 51.
67. (Withdrawn) A method of treating a patient, comprising administering to the patient a therapeutically effective amount of a composition according to claim 52.
68. (Withdrawn) A method of treating a patient, comprising administering to the patient a therapeutically effective amount of a composition according to claim 53.
69. (Withdrawn) A method of treating a patient, comprising administering to the patient a therapeutically effective amount of a composition according to claim 54.
70. (Withdrawn) A method of treating a patient, comprising administering to the patient a therapeutically effective amount of a composition according to claim 55.
71. (Withdrawn) A method of treating a patient, comprising administering to the patient a therapeutically effective amount of a composition according to claim 56.
72. (Withdrawn) A method of treating a patient, comprising administering to the patient a therapeutically effective amount of a composition according to claim 57.

73. (Withdrawn) A method of treating a patient, comprising administering to the patient a therapeutically effective amount of a composition according to claim 58.

74. (Withdrawn) A method of treating a patient, comprising administering to the patient a therapeutically effective amount of a composition according to claim 59.

75. (Withdrawn) A method of treating a patient, comprising administering to the patient a therapeutically effective amount of a composition according to claim 60.

76. (Withdrawn) A method of treating a patient, comprising administering to the patient a therapeutically effective amount of a composition according to claim 61.

77. (Withdrawn) A method of treating a patient, comprising administering to the patient a therapeutically effective amount of a composition according to claim 62.

78. (Withdrawn) A method of treating a patient, comprising administering to the patient a therapeutically effective amount of a composition according to claim 63.

79. (Withdrawn) A method of treating a patient, comprising administering to the patient a therapeutically effective amount of a composition according to claim 64.

80. (Withdrawn) A method of treating a patient, comprising administering to the patient a therapeutically effective amount of a composition according to claim 65.

81. (Withdrawn) A method for detecting *N. meningitidis* antigens comprising contacting an antibody according to claim 18, 33, 34, 35, or 36 with a biological sample under conditions suitable for the formation of complexes between said antigens and said antibodies, and detecting said complexes.

82. (Withdrawn) A method for detecting antibodies that selectively bind to *N. meningitidis* antigens comprising contacting a protein according to claim 6, 12, 13, 14 or 28 with a

biological sample under conditions suitable for the formation of complexes between said protein and said antibodies, and detecting said complexes.